
Name of Organization: Kalamazoo County

Type of Organization: County

Contact Information: Mr. Randolph Terronez

County Administrator - Kalamazoo County

201 West Kalamazoo Avenue

Kalamazoo MI 49007

Phone: (616) 384 - 8087 **Extension:**

Fax: (616) 383 - 8862

E-Mail: RDTErr@kalcounty.com

Project Title: Cost Benefit Analysis - A Tool for Water Use Planning

Project Category: Emerging Issues

Rank by Organization (if applicable): 0

Total Funding Requested (\$): 300,000 **Project Duration:** 2 Years

Abstract:

Kalamazoo County Michigan, like other counties in the Great Lakes Basin, would like to approach water use planning in a sustainable manner. However, viewing water resources as an integrated system represents a significant departure from conventional decision making. In particular, groundwater and surface water concerns are often approached separately, yet they may be quite intertwined. Kalamazoo County proposes to develop water conservation strategies for the county, to outline the potential hydrogeologic benefits, to assess the hidden costs of current water management practices, and to reveal potential benefits of the more sustainable systems. Kalamazoo County is a logical pioneer in this arena because groundwater is its sole water source, and current practices are depleting the resource more rapidly than the rate of recharge. At the same time, the released EPA Phase II Stormwater regulations will place new requirements on counties to manage water runoff from smaller storm sewer systems in urbanized areas, including Kalamazoo. The conventional approach would be to manage the two problems separately, yet they are clearly related. Bulk groundwater withdrawals becomes storm water which must be managed, and depletion of groundwater seriously damages aquifer systems. The County proposes to undertake an integrated hydrogeologic and economic benefits study in order to help county officials understand the linkages between these water management concerns. This study is also of keen concern to the broader Great Lakes region in light of the current effort to design a new approach to managing bulk water removals and water use generally. Kalamazoo County would work with the Northeast-Midwest Institute, National Oceanic and Atmospheric Administration, and prominent economists and hydrogeologists in the Great Lakes region to conduct this study. It will also work with the National Association of Counties to disseminate the results.

Geographic Areas Affected by the Project

States:

<input type="checkbox"/> Illinois	<input type="checkbox"/> New York
<input type="checkbox"/> Indiana	<input type="checkbox"/> Pennsylvania
<input checked="" type="checkbox"/> Michigan	<input type="checkbox"/> Wisconsin
<input type="checkbox"/> Minnesota	<input type="checkbox"/> Ohio

Lakes:

<input type="checkbox"/> Superior	<input type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input type="checkbox"/> Ontario
<input checked="" type="checkbox"/> Michigan	<input type="checkbox"/> All Lakes

Geographic Initiatives:

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
--	----------------------------------	-------------------------------------	--------------------------------------	---

Primary Affected Area of Concern: Kalamazoo River, MI

Other Affected Areas of Concern:

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

In the watershed of Lake Michigan lies Kalamazoo County, Michigan which in many ways is typical of counties found all over the Great Lakes and United States. Like other counties, Kalamazoo uses increasing volumes of water to support its drinking water, agriculture, industry, and recreational activities, and it faces a daunting task of planning for sustainable future water use. In addition, it faces an expensive and planning-intensive new water use management effort to implement EPA's phase II storm water regulations, which will control storm water run off from smaller storm sewer systems in urbanized areas.

While Kalamazoo is like other counties in these ways, it has the distinction of using groundwater as its sole source of drinking water, and the County's groundwater supply is potentially being used much more rapidly than it is being replenished. A local pharmaceutical industry uses groundwater exclusively for its manufacturing processes. The bedding plant industry in Kalamazoo County, the largest in the US, is solely dependent on groundwater supplies. These circumstances make sustainable water use planning critical for Kalamazoo County, and they make Kalamazoo County an ideal place to identify the net benefits of a conservation strategy and develop tools for counties to approach water use planning basin-wide.

Such a study would be especially timely in the Great Lakes region because it will inform the current discussion surrounding water use in the Great Lakes, including bulk water removal and water use generally. While this discussion is centered on out-of-basin transfers, many questions also surround the environmental impacts of in-basin water use, especially the impacts of transforming groundwater to surface water. A study of Kalamazoo County's situation should provide valuable information about the cost and hydrogeologic implications of common in-basin uses.

Proposed Work Outcome:

In light of the larger overriding issues of water use planning, new EPA storm water regulations, and discussions surrounding water management in the Great Lakes, Kalamazoo County proposes to do the following:

- Work with the Northeast-Midwest Institute and National Oceanic and Atmospheric Administration to develop "straw-man" conservation strategies which Kalamazoo County could adopt in its approach to water use management;
- Work with hydrogeologists to clearly define each conservation strategy in terms of the impacts, benefits on the water supply, and implementation needs;
- Work with economists to determine the hidden costs of the existing water management system, and outline the net benefits of the "straw-man" conservation strategies;
- Work with the National Association of Counties to package and disseminate the information developed in the project to

help other counties approach water use management in a holistic, sustainable manner; and

- Explore policy innovations which would serve as incentives for counties to comply with existing water regulations and incorporate them into a water use conservation strategy.

Project Milestones:

Dates:

Project Start	09/2000
Project Research to Define Alternatives	09/2000
Hydrogeologists' Analysis	03/2001
Economists' Analysis	10/2001
Disseminate Results to Other Counties	06/2002
Project End	10/2002
	/
	/

☒ Project Addresses Environmental Justice

If So, Description of How:

Environmental justice analysis would be incorporated in the benefits assessment of water conservation alternatives.

☒ Project Addresses Education/Outreach

If So, Description of How:

Education and outreach are critical to this project and will build upon ongoing Kalamazoo County efforts. In early spring of 2000, the county will implement, "Understanding Water Issues in Kalamazoo County - An Educational Series for Elected Officials and Residents," to help raise the awareness of the multiple water resources issues facing the county. The proposed project is well timed to begin after this series is completed, so a more informed public can participate in the project.

As project partners, the Northeast Midwest Institute and the National Association of Counties (NACo) will provide outreach to the Great Lakes region as well as to counties across the country by documenting and disseminating the project results. Many counties are struggling with water resource management issues similar to Kalamazoo County. The proposed project will "pilot" the cost benefit analysis tool and help assess whether the tool is a model for replication by other counties.

Specific education and outreach activities will include:

- Kalamazoo County will hold at least two public meetings to engage interested people in the project. Meetings will provide information on the cost benefit analysis tool development, assessment, results, and application.
- Kalamazoo County will provide regular project updates through public information vehicles, including Board of County Commissioners meetings and their web site.
- Kalamazoo County will work with the Northeast Midwest Institute and the National Association of Counties (NACo) to document the project results and disseminate information to the Great Lakes Region and the rest of the country.
- NACo will produce a report summarizing how the Cost Benefit Analysis Tool may be useful to counties in the Great Lakes region and elsewhere for water resource management, and assess how counties may replicate the proposed project.
- NACo will disseminate a report and lessons learned at national and state association of counties' workshops.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	27,000	0
Fringe:	7,800	0
Travel:	3,000	0
Equipment:	500	0
Supplies:	3,700	0
Contracts:	250,000	0
Construction:	0	0
Other:	0	0
Total Direct Costs:	292,000	0
Indirect Costs:	8,000	0
Total:	300,000	0
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Kalamazoo County will be seeking funds from the National Oceanic and Atmospheric Administration and the Great Lakes Protection Fund.

Description of Collaboration/Community Based Support:

National Association of Counties (NACo)

Established in 1935, NACo is the only national organization representing the nation's 3,068 county governments. Through its research arm, the National Association of Counties Research Foundation, a 501(c)(3) organization, NACo provides critical research and program support to county elected and appointed officials throughout the nation. The missions of NACoRF are to develop the leadership, programs and services necessary to enable counties to meet the challenges of the 21st century, manage rapid change, and assist counties in helping their citizens achieve a better quality of life. As a membership organization, NACo is composed of more than 1,950 counties representing more than 75 percent of the population of the United States. The membership, which spans urban, suburban, and rural counties, directs the policies and activities of NACo and NACoRF through its steering committees, Board of Directors, elected leadership, and affiliate organizations. NACo facilitates peer-to-peer learning among counties and information dissemination through a variety of mechanisms including: County News, a national bi-weekly newspaper, with a circulation of 30,000; The County Environmental Quarterly; workshops at two national conferences; NACo's web site; and meetings of NACo's Watershed Management Advisory Committee.

Northeast-Midwest Institute

The Northeast-Midwest Institute is a Washington-based, private, non-profit, and non-partisan research organization dedicated to economic vitality, environmental quality, and regional equity for Northeast and Midwest states. Formed in the mid-1970's, it fulfills its mission by conducting research and analysis, developing and advancing innovative policy, providing evaluation of key federal programs, disseminating information, and highlighting sound economic and environmental technologies and practices.